

101.14 - Cast Steels, White Cast Irons, and Ductile Irons (disk form)

These SRMs are for analysis of cast steels and cast irons by rapid instrumental methods.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	1138a	1139a	1173	C1137a	C1145a	C1173	C1290	C1291	C1292	C2424
Description	Cast Steel Standard	Cast Steel Standard	Ni-Cr-Mo-V Steel	White Cast Iron	White Cast Iron	Cast Steel 3	High-Alloy White Cast Iron (HC-250+V)	High-Alloy White Cast Iron (Ni-Hard, Type I)	High-Alloy White Cast Iron I (Ni-Hard, Type IV)	Ductile Iron C
Unit of Issue	(disk)	(disk)	(disk)	(disk)	(disk)	(disk)	(disk)	(disk)	(disk)	(disk)

Elemental Composition (mass fraction in %)

Aluminum (Al)	(0.067)	(0.13)	(0.007)	(0.04)	(0.005)					(<0.01)
Arsenic (As)	(<0.005)	(<0.005)		(0.02)	(0.02)					
Boron (B)										(0.002)
Carbon (C)	0.118	0.790	0.423	2.86	2.92	0.453	3.04	2.67	3.47	2.68
Cerium (Ce)				0.016						0.0046
Chromium (Cr)	0.13	2.18	2.70	0.643	0.63	2.63	30.5	2.78	11.4	0.13
Cobalt (Co)			(0.064)		0.058	(0.064)				(0.05)
Copper (Cu)	0.09	0.47	0.204	0.192	0.46	0.204	0.065	0.26	0.36	0.125
Iron (Fe)	(98.7)	(93.0)								
Lanthanum (La)										0.0011
Lead (Pb)					(0.0006)					
Magnesium (Mg)				0.032						0.006
Manganese (Mn)	0.35	0.92	0.19	0.52	0.187	0.174	0.66	1.14	0.55	0.268
Molybdenum (Mo)	0.05	0.51	1.50	0.86	0.48	1.46	(0.041)	0.32	0.25	0.019
Nickel (Ni)	0.10	0.98	4.06	2.17	0.62	4.04	0.917	4.34	5.04	0.061

Elemental Composition (mass fraction in %)

Niobium (Nb)		(0.045)								
Phosphorus (P)	0.035	0.012	0.033	0.087	0.215	0.031	0.030	0.028	0.049	0.041
Silicon (Si)	0.25	0.80	1.28	1.15	0.271	1.38	0.971	1.34	0.59	3.37
Sulfur (S)	0.056	0.013	0.092	0.017	0.191	0.092	0.013	0.032	0.016	0.024

- Certified values are normal font

- Reference values are italicized

- Values in parentheses are for information only

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Titanium (Ti)	(0.0012)	(0.004)	(0.015)	(0.04)	0.012	0.037			0.050	
Vanadium (V)	0.020	0.26	0.42	0.019	0.112	0.42	0.442	0.031	0.041	0.083

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